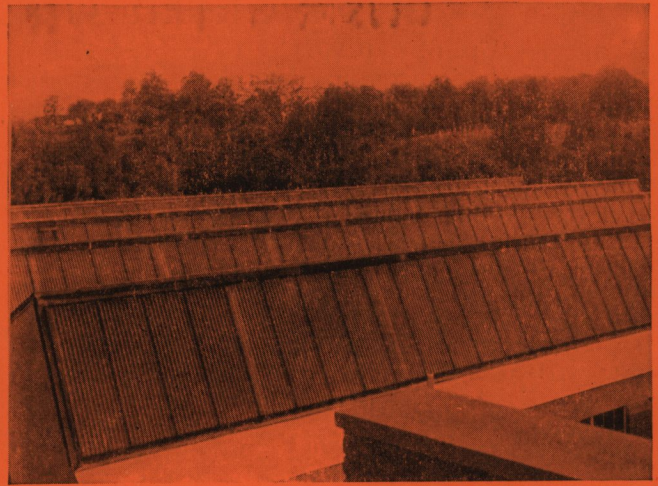


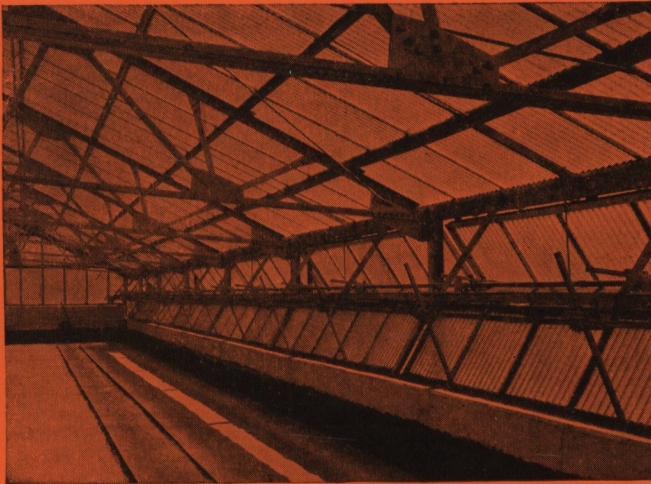
PHILADELPHIA NAVY YARD  
FOUNDRY BUILDING  
21,000 sq. ft. Side Wall Construction



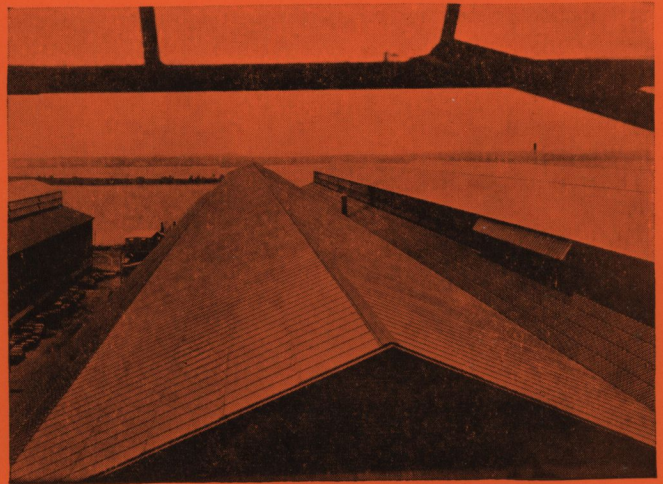
PERFECT CIRCLE PISTON RING CO.  
HAGERSTOWN, INDIANA  
7,500 sq. ft. C. W. G. Sawtooth Construction

# CORRUGATED WIRE GLASS

## SKYLIGHTS AND SIDE WALL CONSTRUCTION



SLUDGE BEDS  
BURLINGTON, N. J.  
All C. W. G. Buildings



GENERAL STEEL CASTINGS CO.  
EDDYSTONE, PA.  
323,000 sq. ft. Monitor Roofs

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**PENNSYLVANIA WIRE GLASS COMPANY**  
1612 MARKET STREET  
PHILADELPHIA, PA.



# CORRUGATED WIRE GLASS SKYLIGHTS

Corrugated Wire Glass (CWG) is a corrugated sheet of glass with wire netting incorporated in it during the process of manufacture. Owing to the corrugations it has strength many times greater than any flat glass of equal thickness. To meet the demand for a strong, substantial skylight CWG was adopted to this use by the PENNSYLVANIA WIRE GLASS COMPANY which has specialized in this form of construction for many years.

CWG Skylights can be placed on a roof of any material, including corrugated iron and corrugated asbestos. CWG can be used for roofs, sidewalls, marquises, canopies and, in fact, wherever *daylight* is desired.

CWG Skylights offer many points of superiority. Low maintenance costs are an important item. There are no bars to rust or corrode. No supplementary frame is used as they are applied

directly on steel or wood purlins or curbs, and concrete. They have unusual resistance to vibration and temperature changes and are completely weathertight.

Because of the corrugations, rain washes off dirt and dust, making these skylights practically self-cleaning. Being translucent they transmit diffused light with a minimum of shadows.

The Company maintains an engineering service department for consultation regarding skylighting and kindred problems for which there is no charge. Upon receipt of rough sketches or details they will be glad to offer suggestions for CWG Skylights, roofs, etc. Samples of any type of glass manufactured will gladly be mailed on request. For data on Flat Wire Glass and Actinic Glass refer to catalog in the Glass Section of Sweet's File. See File Index.

## INDEX TO DETAILS

### Plate No.

- P-100 Isometric Detail of Typical Lap Joint.
- P-101 Gable End Skylights with Steel Framing.
- P-102 Single Pitch Skylights with Steel Framing.
- P-103 Concrete Curb Skylights.
- P-104 Concrete Curb Skylights.
- P-105 Skylights on Wood Sheathed Roof.
- P-106 Wood Curb Skylights.
- P-107 Skylights with Cement-tile Roofing.
- P-108 Skylights with Steel-deck Roofing.
- P-109 Sawtooth Skylights with Steel Framing.
- P-110 Sawtooth Skylights with Steel Framing.
- P-111 Sawtooth Skylights with Wood Framing.
- P-112 Skylights on Back Slopes of Sawtooth Framing.
- P-113 Skylights with Corrugated Sheet Metal Roofing.
- P-114 Steel Framed Marquise.

### Plate No.

- P-115 Typical Sheet Metal Ventilator Details.
- P-116 Methods of Draining Condensation.
- P-117 Steel Framed Canopies.
- \*P-118 to P-124 inclusive.
- 2700 Typical CWG Skylights with corrugated asbestos.
- 2700A Details of CWG with 2½ in. and 2¾ in. pitch corrugated asbestos.
- 2700B Details of CWG with 4.2 in. pitch corrugated asbestos.
- 2825A Standard 10 ft. 0 in. wide Curb Skylight—Steel Frame.
- 2825B Standard 20 ft. 0 in. wide Curb Skylight—Steel Frame.
- 2825C Standard 10 ft. 0 in. and 20 ft. 0 in. wide Skylight Gable-end Details.
- 3551 Details of CWG Ventilating Units.
- 3606 Sludge Bed Details.
- 3606A Sludge Bed Details.

\*These sheets will be sent out as they are issued.

## SPECIFICATIONS FOR THE INSTALLATION OF CORRUGATED WIRE GLASS

### SCOPE OF WORK

#### I. Work by Others—

All supporting frames, curbs, purlins, ridge-beams, tie-rods and bracing for proper construction shall be provided under another contract.

All roofing, curb and roof flashings, gutters and counter-flashings shall be provided under another contract.

#### II. Work Required—

The work to be done under this contract includes the furnishing of all labor, materials, equipment and services necessary for, and reasonably incidental to, the erection of (White or Actinic—specify which) Corrugated Wire Glass (in Skylights or Side-Wall Panels), as manufactured by the PENNSYLVANIA WIRE GLASS COMPANY with standard fittings of (specify which) No. 3S8 Aluminum (.032 in. thick), 18-oz. cold rolled copper, 24-gauge galvanized steel (copper bearing) (painted with aluminum), 13-gauge zinc, 24-gauge "Lead Clad" steel, 6-lb. Hoyt hard lead, as shown on the drawings and herein specified.

### SHOP DRAWINGS

This Contractor shall furnish the (Architects, Engineers, Purchasers), for their approval before any of the work is executed, complete shop drawings conforming to the recommendations of the manufacturer.

### CONSTRUCTION AND ERECTION

This Contractor shall erect the Corrugated Wire Glass exactly as prescribed in the approved drawings and recommendations of the PENNSYLVANIA WIRE GLASS COMPANY. (While the specification clause above will cover the erection of Corrugated Wire Glass, under the heading of "Notes" below, there are several clauses which may be included where deemed necessary.)

### NOTES

(a) No sheet of Corrugated Wire Glass shall exceed 27¼ in. in width, and, no single sheet shall span more than 60 in. clear opening (up the slope) without an intermediate support. Where glass is set at an angle of 60 degrees, or more, from the horizontal, the maximum clear span may extend to 96 in. (up the slope). Corrugated Wire Glass covering openings greater than those mentioned must have an intermediate support or arrangements must be made to use two or more lights of glass.

(b) The sheets of glass shall be laid edge to edge (not lapping) with ½-in. spaces between the sheets and the open joints so formed shall be covered with exterior metal cover caps and metal inner strips which conform to the corrugations of the glass. The exterior cover caps shall have an asphaltic lining. The caps and inner strips, to complete the joint, shall be bolted together by bolts passing through the caps and inner strips and between the sheets of glass approximately 9 in. center to center.

(c) Where structural supports occur, clips, engaged by bolts passing through the cover caps, shall be used to hold the glass securely in place.

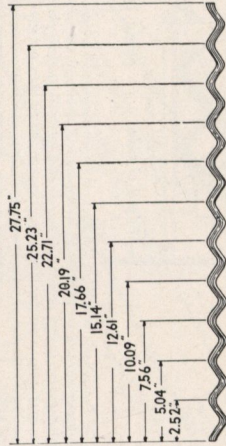
(d) Each light of glass shall have a firm, even bearing and wherever any sheet of glass is applied to structural work such as curbs, purlins, etc.), it shall be cushioned with an asphalt strip. Where it laps over other glass, it shall be cushioned with a sealing strip.

At the bottom (or eaves) of Corrugated Wire Glass construction and at the top (in conjunction with the ridge or flashings), the openings caused by the corrugations of the glass shall be filled with a sealing strip especially designed and supplied for this purpose.

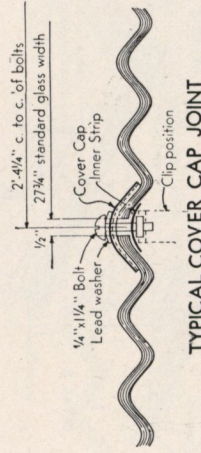


STANDARD SIZE AND SPACING FOR CORRUGATED WIRE GLASS

DEEP ANGLE			
Lts.	Width	Lts.	Width
1	2'-4 1/4"	51	120'-0 3/4"
2	4'-8 1/2"	52	122'-0 1/4"
3	7'-0 3/4"	53	124'-0 1/4"
4	9'-5 1/4"	54	126'-0 1/4"
5	11'-9 1/4"	55	128'-0 1/4"
6	14'-1 1/2"	56	131'-10"
7	16'-5 3/4"	57	134'-2 1/4"
8	18'-10"	58	136'-0 3/4"
9	21'-2 1/4"	59	138'-10 3/4"
10	23'-6 3/4"	60	141'-3"
11	25'-10 3/4"	61	143'-7 1/4"
12	28'-5"	62	145'-11 1/4"
13	30'-7 1/4"	63	148'-3 3/4"
14	32'-11 1/4"	64	150'-8 3/4"
15	35'-3 3/4"	65	153'-0 1/4"
16	37'-8"	66	155'-4 1/4"
17	40'-0 1/4"	67	157'-8 3/4"
18	42'-4 3/4"	68	160'-1 1/4"
19	44'-8 3/4"	69	162'-5 1/4"
20	47'-1"	70	164'-9 1/4"
21	49'-5 1/4"	71	167'-1 3/4"
22	51'-9 3/4"	72	169'-6 3/4"
23	54'-1 3/4"	73	171'-10 1/4"
24	56'-6"	74	174'-2 1/4"
25	58'-10 1/4"	75	176'-6 3/4"
26	61'-2 1/4"	76	178'-11"
27	63'-6 3/4"	77	181'-3 1/4"
28	65'-10 3/4"	78	183'-7 1/4"
29	68'-3 1/4"	79	185'-11 3/4"
30	70'-7 1/2"	80	188'-4"
31	72'-11 3/4"	81	190'-8 1/4"
32	75'-4 3/4"	82	193'-0 1/4"
33	77'-8 1/4"	83	195'-4 3/4"
34	80'-0 3/4"	84	197'-9 3/4"
35	82'-4 3/4"	85	200'-1 1/4"
36	84'-9"	86	202'-5 1/4"
37	87'-1 1/4"	87	204'-9 3/4"
38	89'-5 1/4"	88	207'-3 3/4"
39	91'-9 3/4"	89	209'-7 3/4"
40	94'-2"	90	211'-10 3/4"
41	96'-6 1/4"	91	214'-2 3/4"
42	98'-10 1/4"	92	216'-6 3/4"
43	101'-2 3/4"	93	218'-10 3/4"
44	103'-7 3/4"	94	221'-4 3/4"
45	105'-11 1/4"	95	223'-8 3/4"
46	108'-3 1/4"	96	226'-0"
47	110'-7 3/4"	97	228'-4 1/4"
48	113'-0"	98	230'-8 1/4"
49	115'-4 1/4"	99	233'-0 3/4"
50	117'-8 3/4"	100	235'-5"



STANDARD SHEET OF CORRUGATED WIRE GLASS



TYPICAL COVER CAP JOINT

NOTES

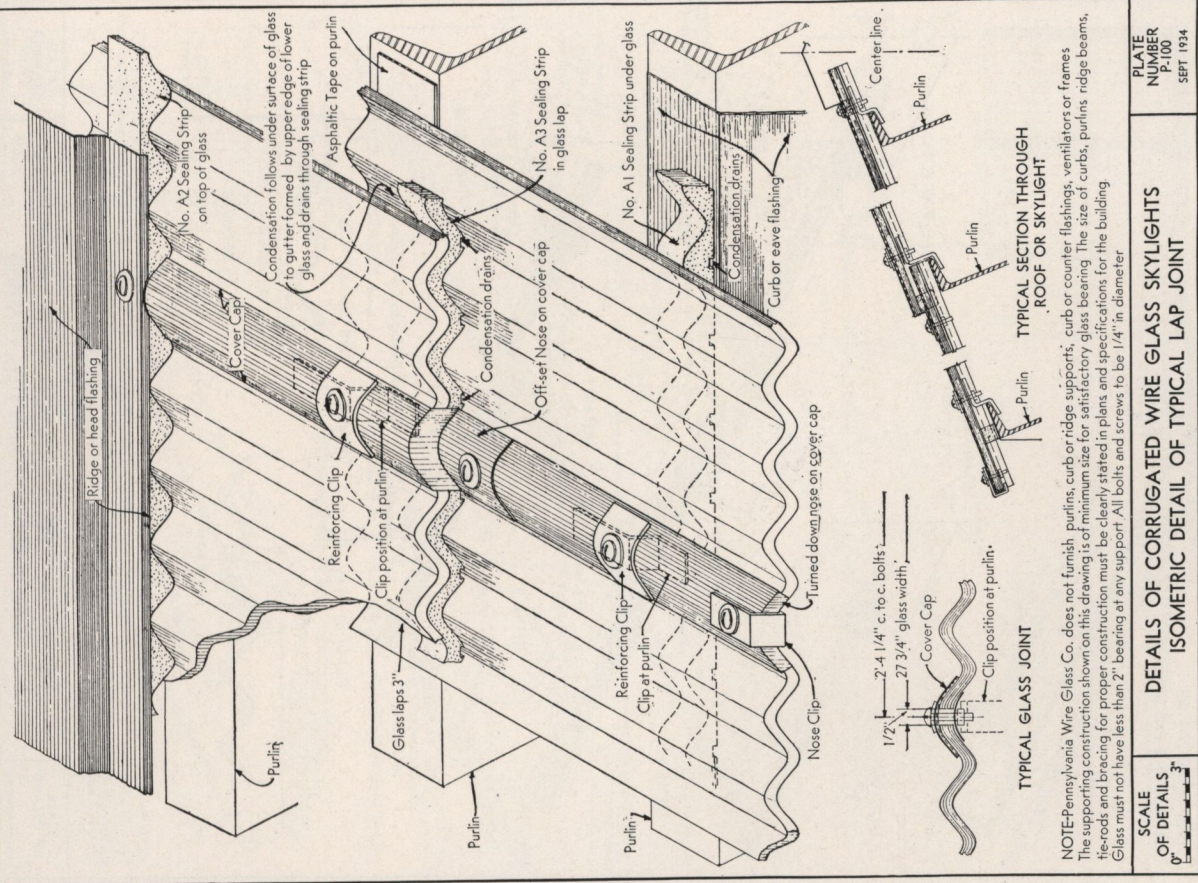
Standard width glass (27 3/4 in.) should be used wherever possible on account of ease in setting and because cut sizes are more difficult to obtain in case of breakage.

When glass must be cut in widths narrower than 27 3/4 in. it can only be supplied in multiples of the full corrugation or 2 1/2 in.—viz., 25 1/4 in., 22 3/4 in., 20 1/4 in. and 17 3/4 in.

In arranging corrugated wire glass sheets to suit a given opening it is often necessary to cut out more than one 2 1/2-in. corrugation. Then it is advisable to divide the cutting among several sheets rather than cut all from one sheet.

Glass more than 27 3/4 in. wide cannot be supplied.

The lengths of the sheets depend upon the conditions under which the glass is used. The conditions governing are shown in the Typical Detail Sheets for different types of skylights and glass roof construction.



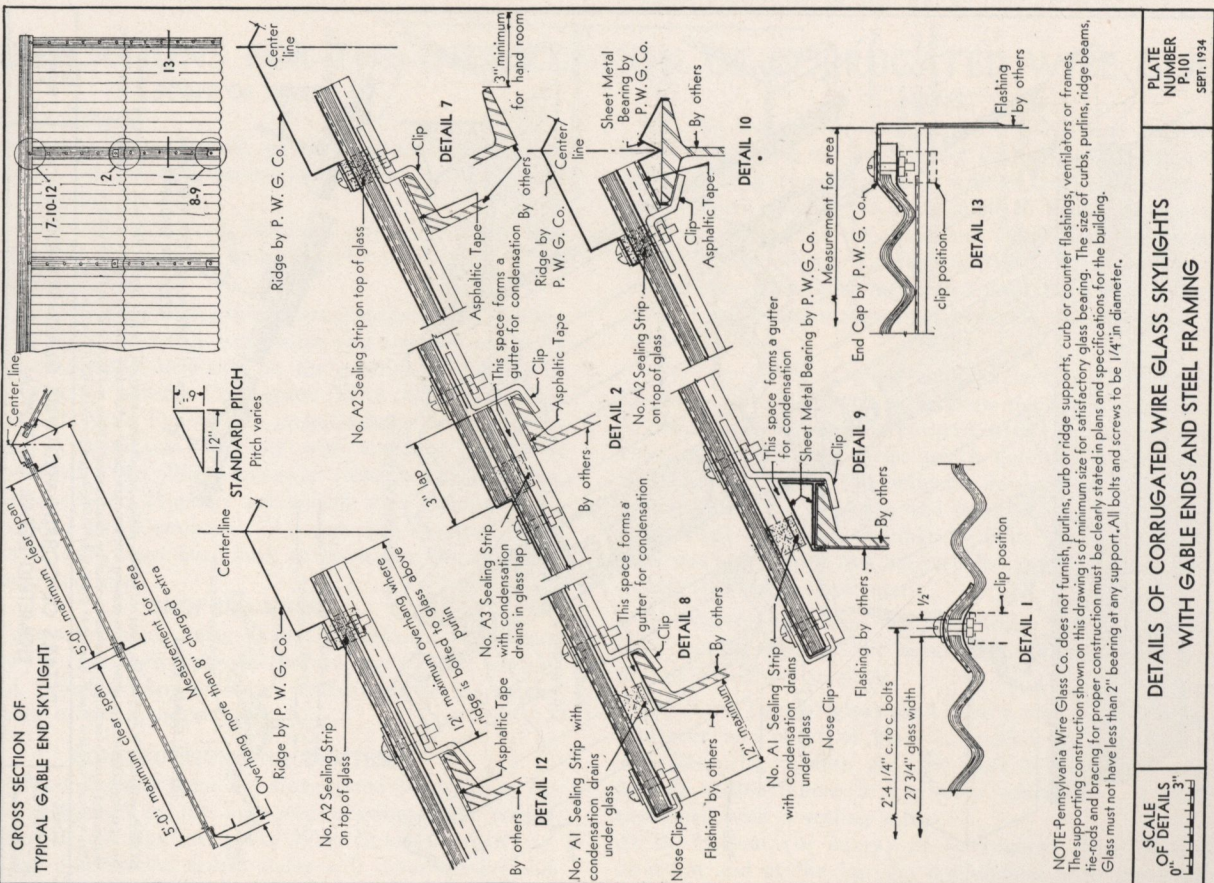
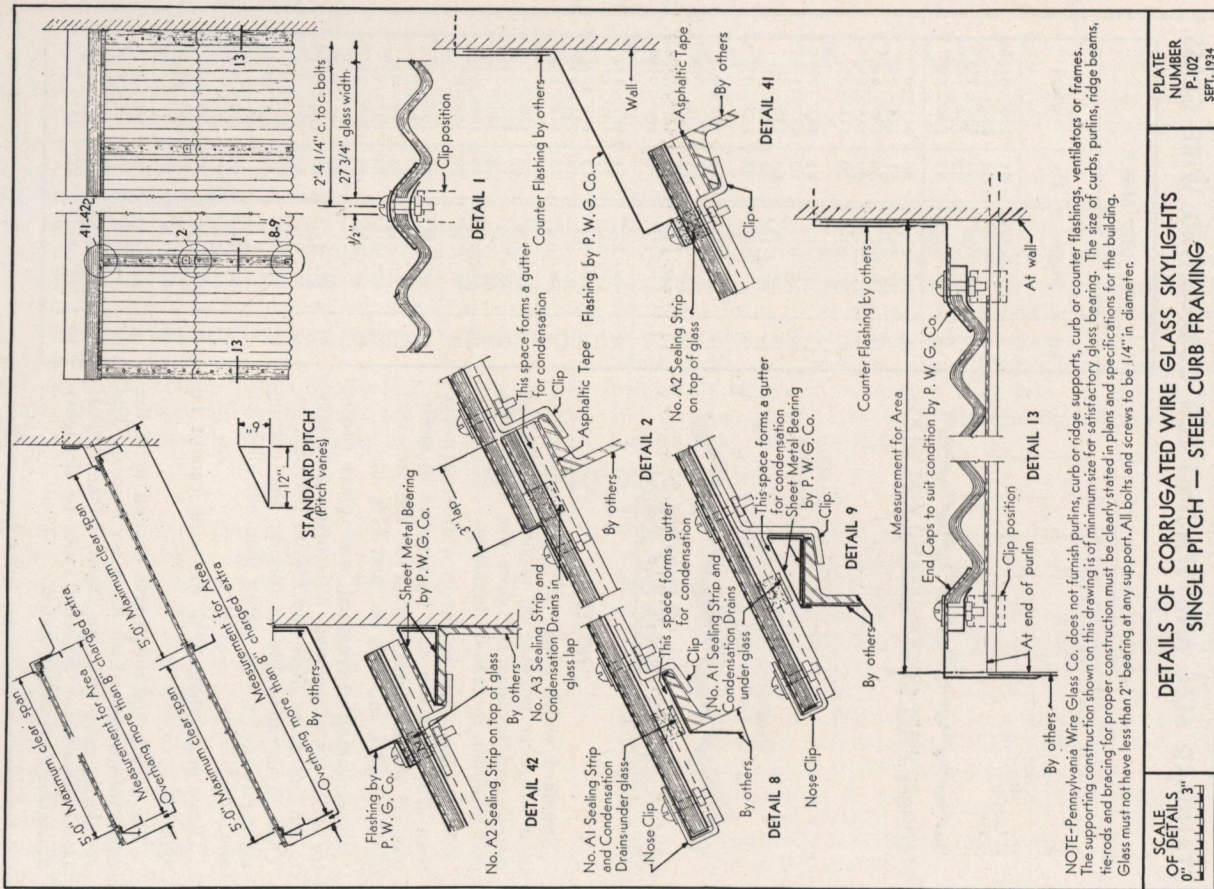
NOTE—Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins ridge beams, tierods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

SCALE OF DETAILS 0" = 3"

DETAILS OF CORRUGATED WIRE GLASS SKYLIGHTS ISOMETRIC DETAIL OF TYPICAL LAP JOINT

PLATE NUMBER P.100 SEPT 1934

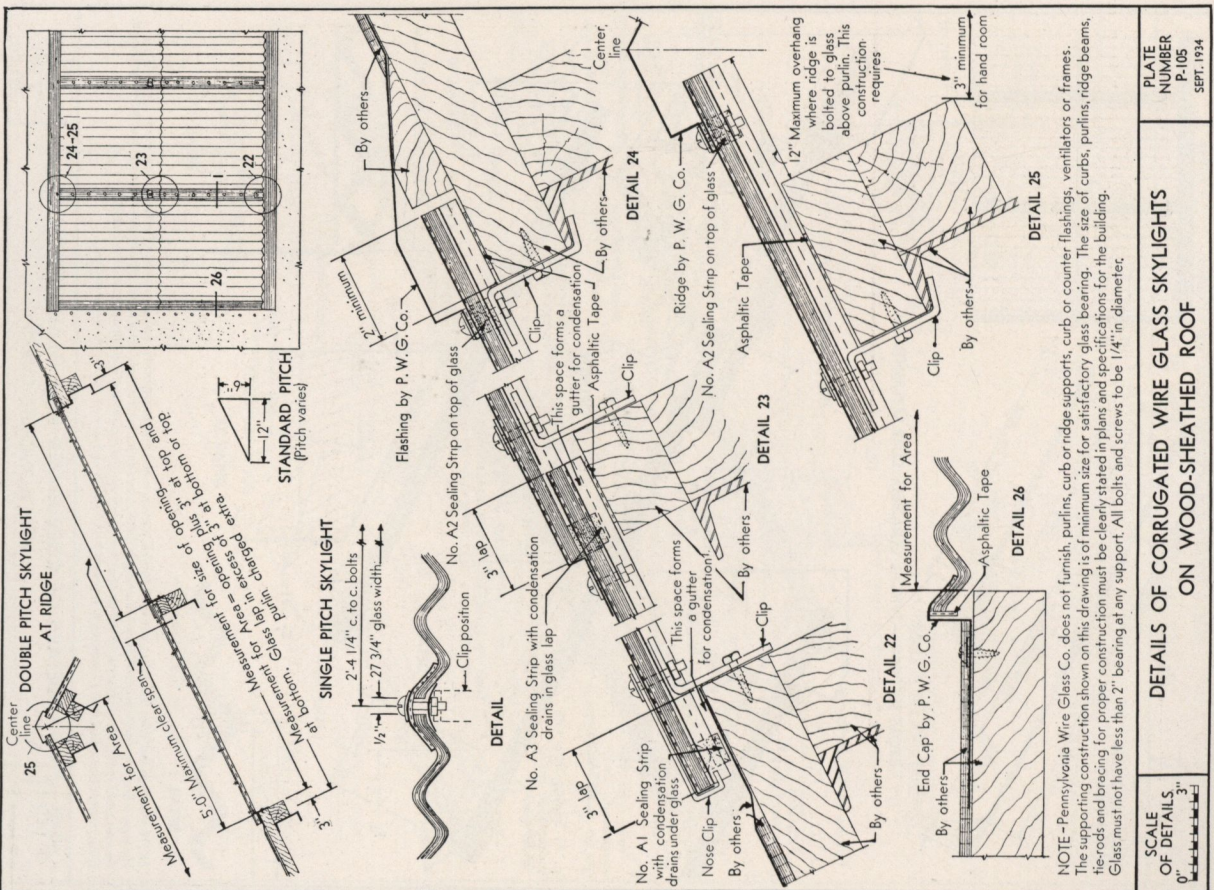








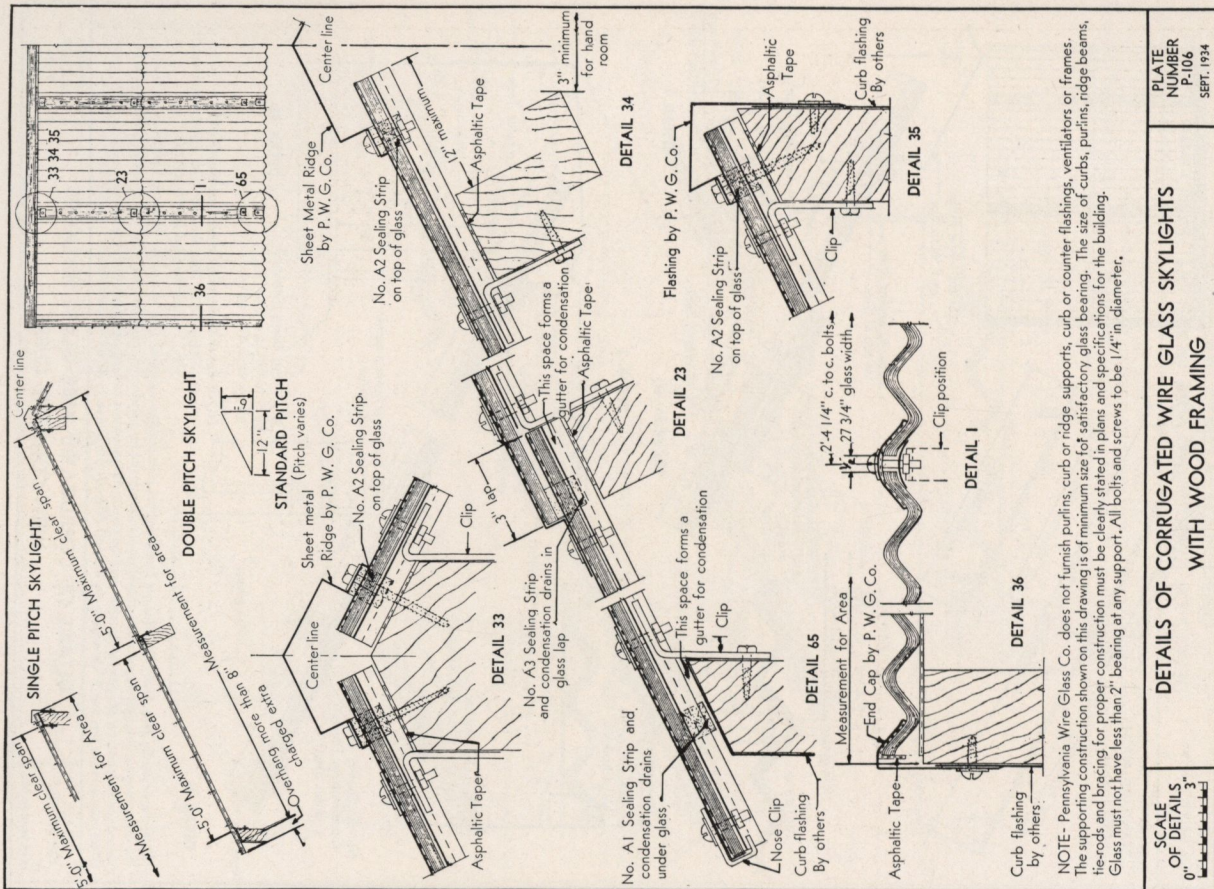




DETAILS OF CORRUGATED WIRE GLASS SKYLIGHTS  
ON WOOD-SHEATHED ROOF

SCALE  
OF DETAILS  
0" = 3"

PLATE  
NUMBER  
P-105  
SEPT. 1934

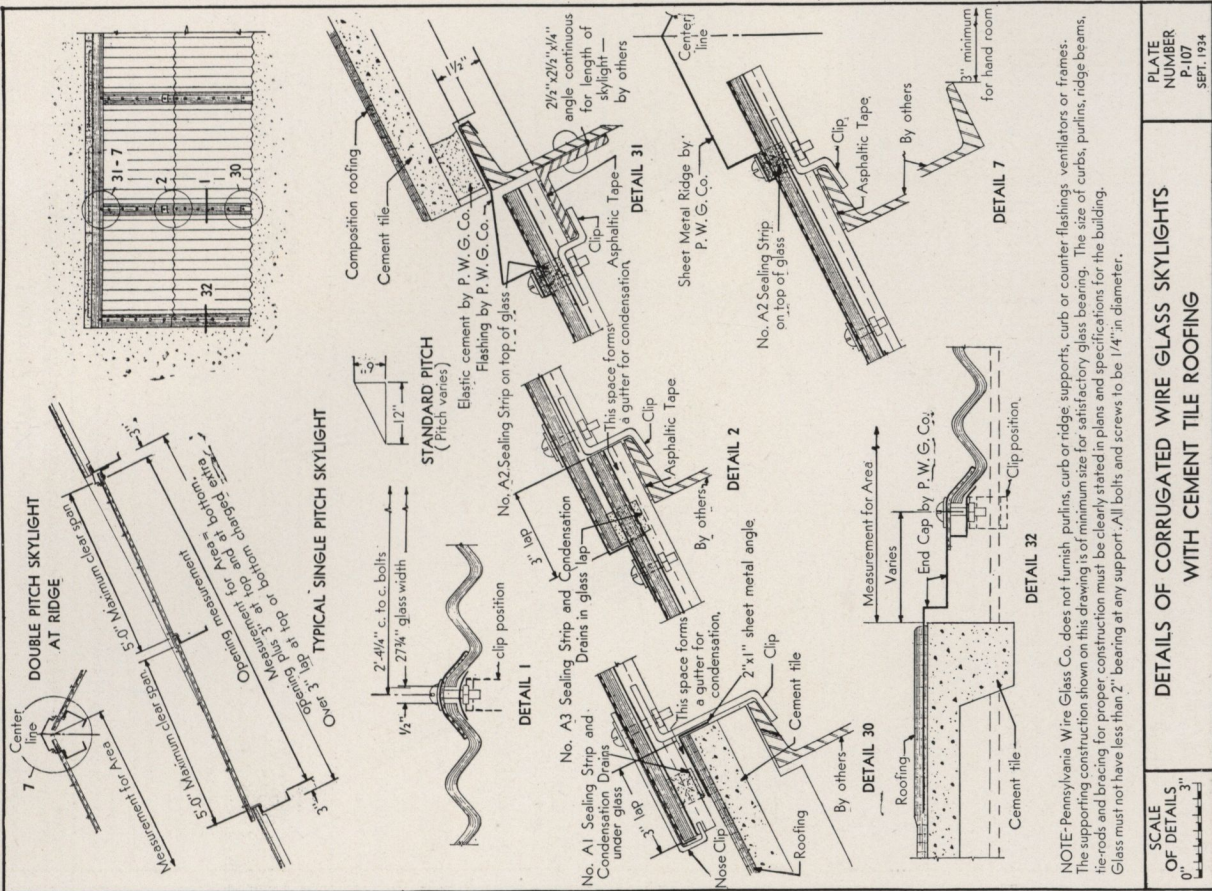


DETAILS OF CORRUGATED WIRE GLASS SKYLIGHTS  
WITH WOOD FRAMING

SCALE  
OF DETAILS  
0" = 3"

PLATE  
NUMBER  
P-106  
SEPT. 1934



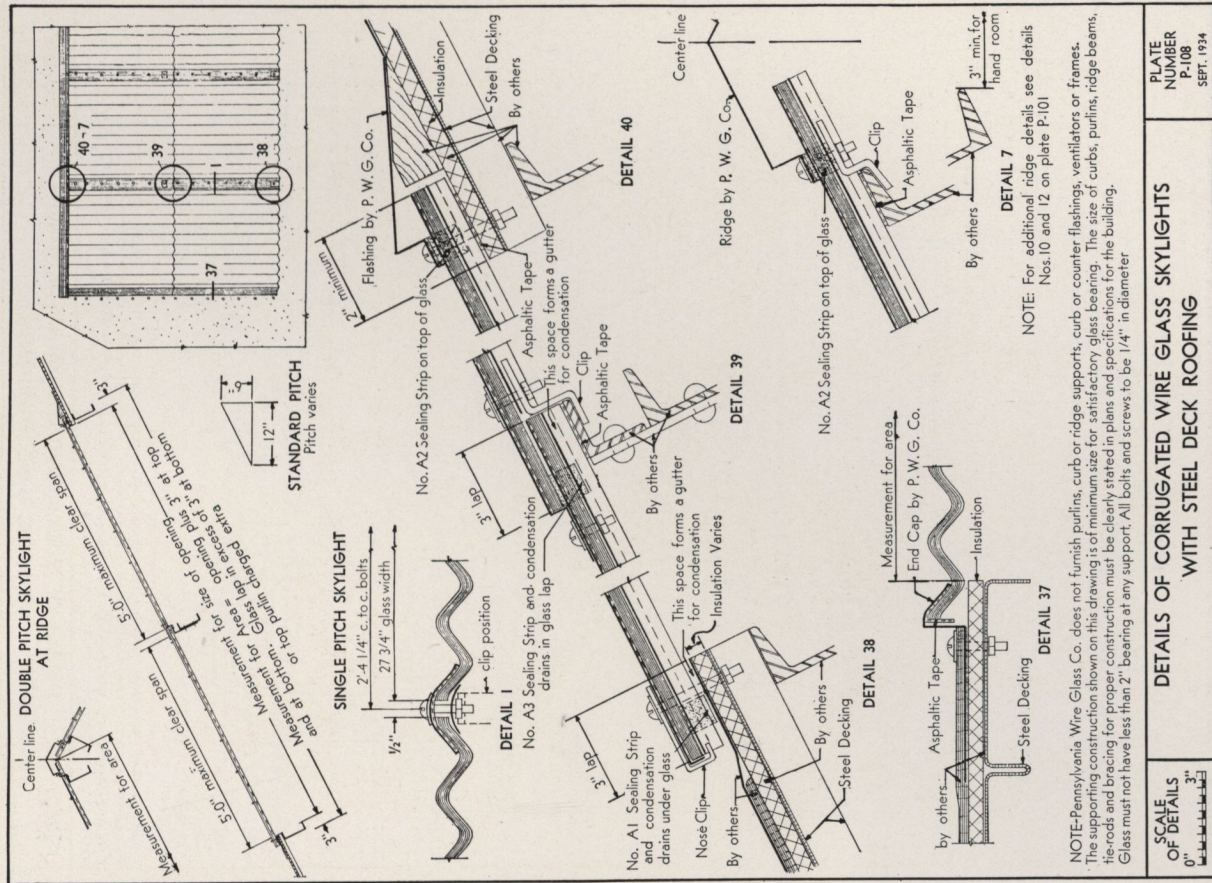


NOTE: Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins, ridge beams, tie-rods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

DETAILS OF CORRUGATED WIRE GLASS SKYLIGHTS  
WITH CEMENT TILE ROOFING

SCALE  
OF DETAILS  
0" 3" 6"

PLATE  
NUMBER  
P-107  
SEPT. 1934



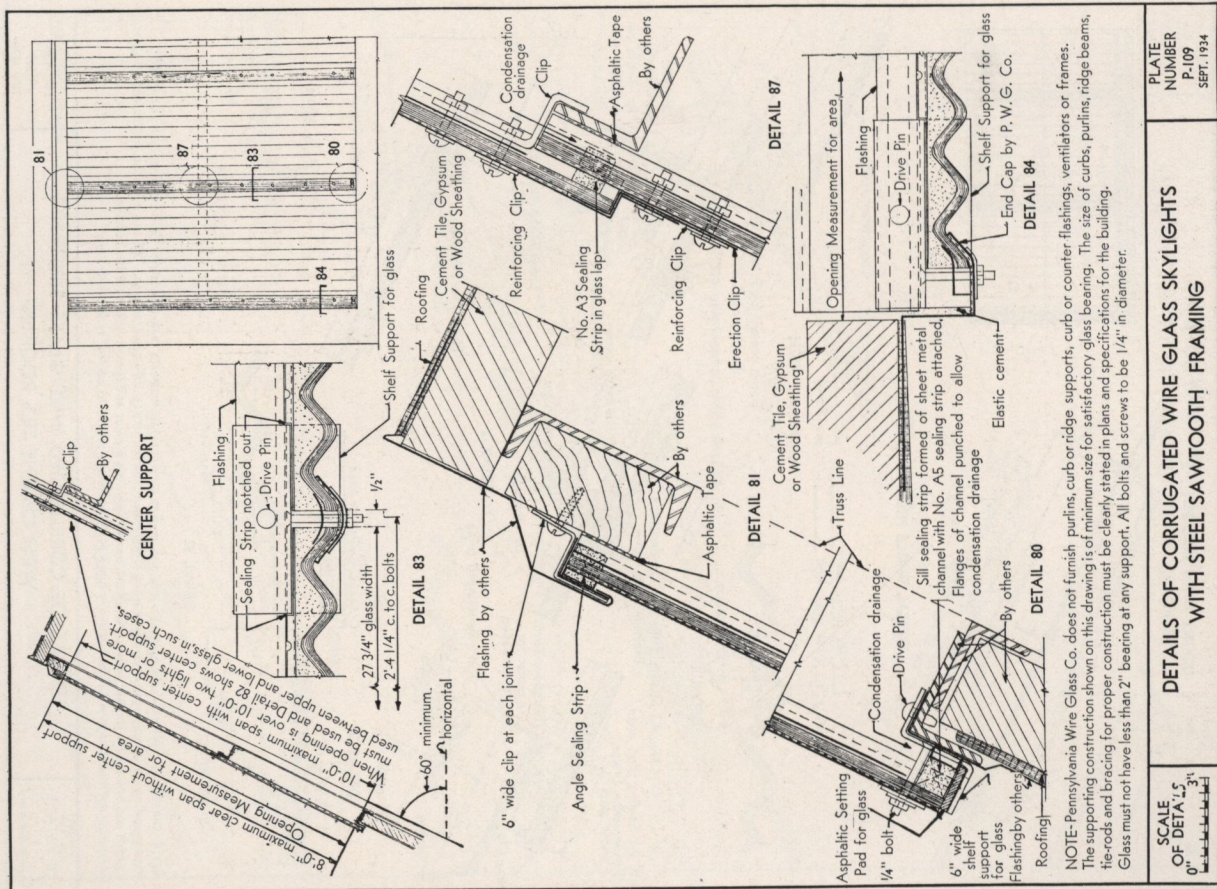
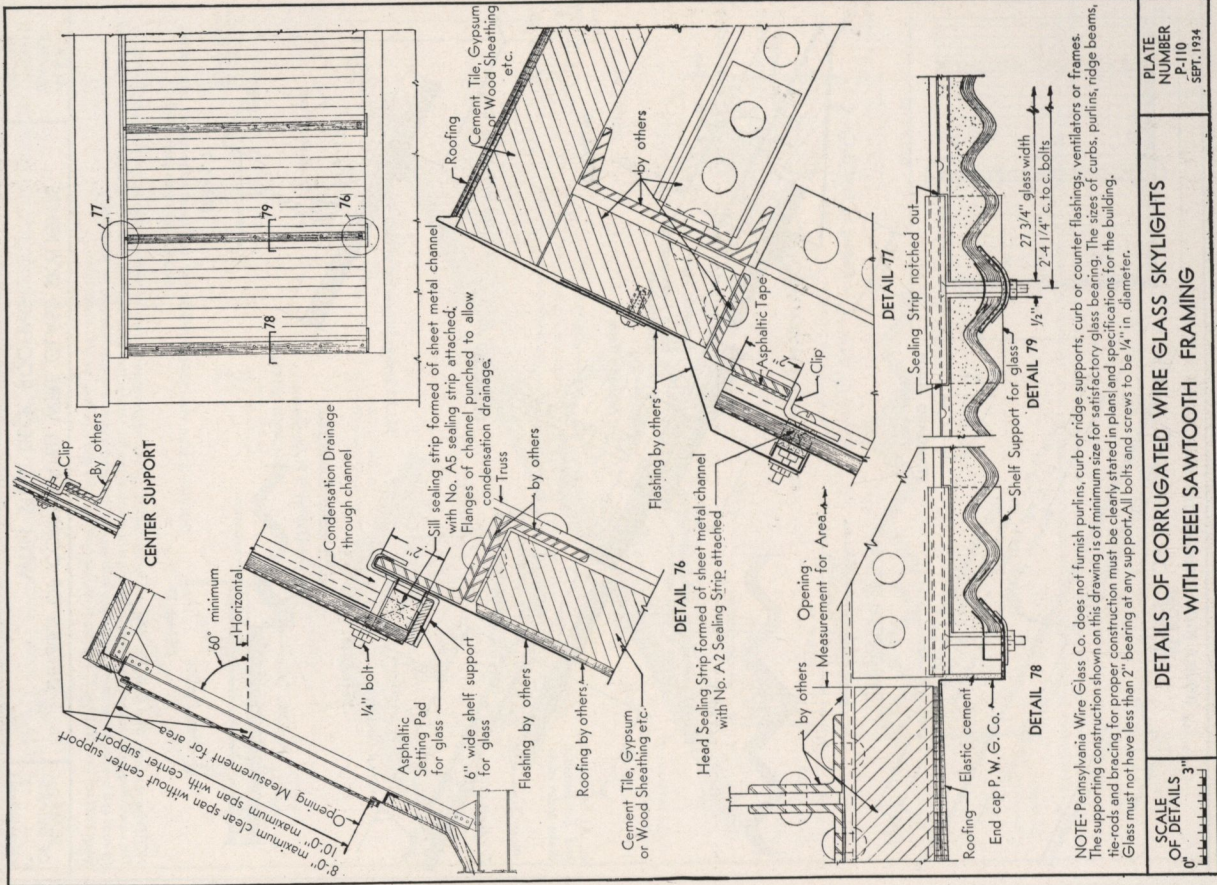
NOTE: Pennsylvania Wire Glass Co. does not furnish purlins, curb or ridge supports, curb or counter flashings, ventilators or frames. The supporting construction shown on this drawing is of minimum size for satisfactory glass bearing. The size of curbs, purlins, ridge beams, tie-rods and bracing for proper construction must be clearly stated in plans and specifications for the building. Glass must not have less than 2" bearing at any support. All bolts and screws to be 1/4" in diameter.

DETAILS OF CORRUGATED WIRE GLASS SKYLIGHTS  
WITH STEEL DECK ROOFING

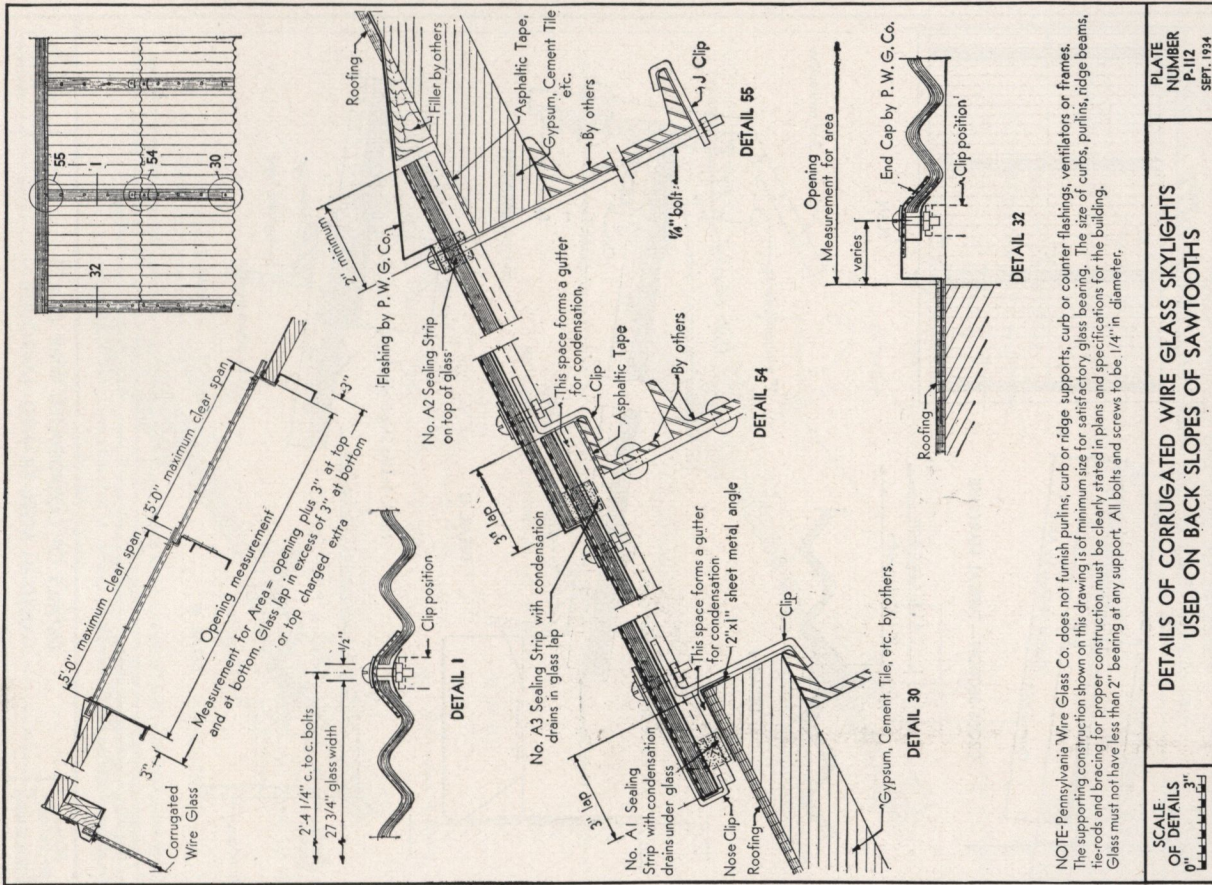
SCALE  
OF DETAILS  
0" 3" 6"

PLATE  
NUMBER  
P-108  
SEPT. 1934

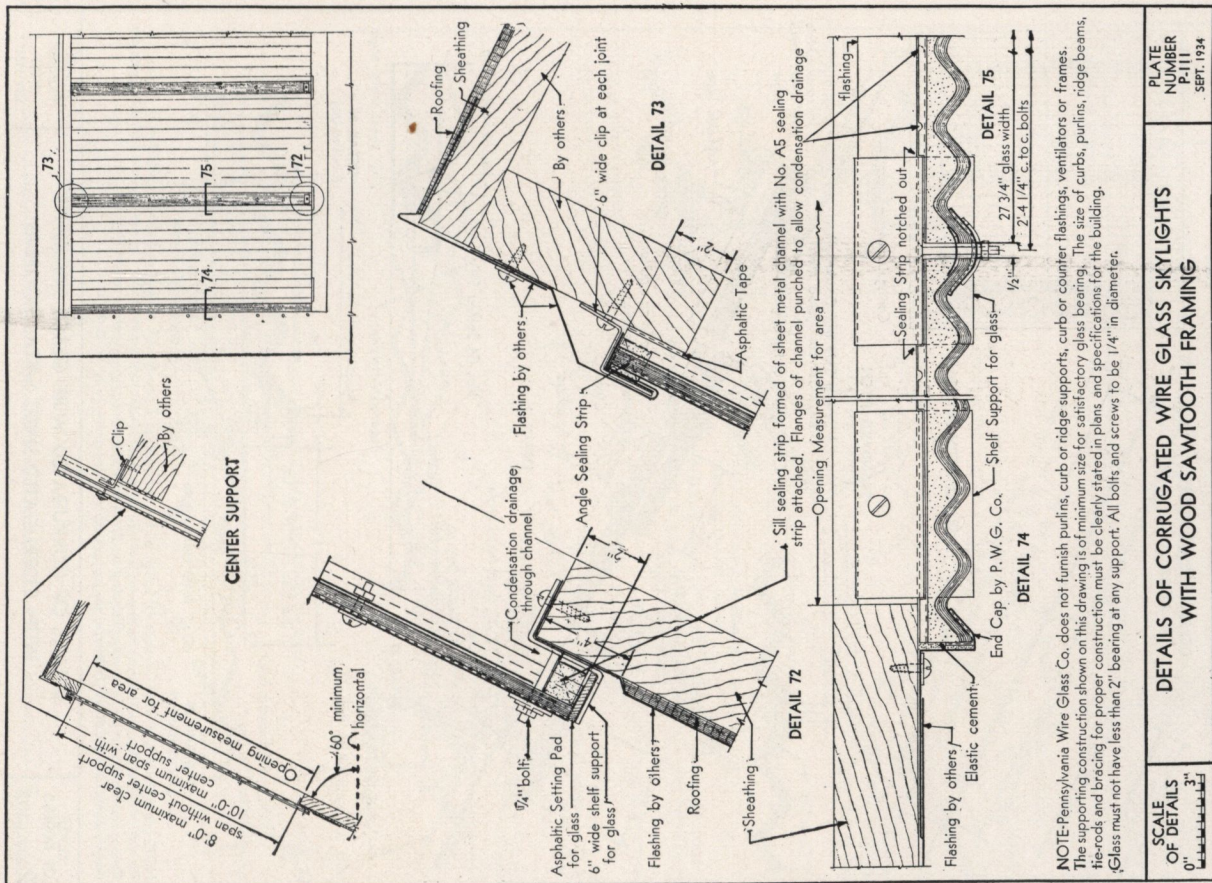






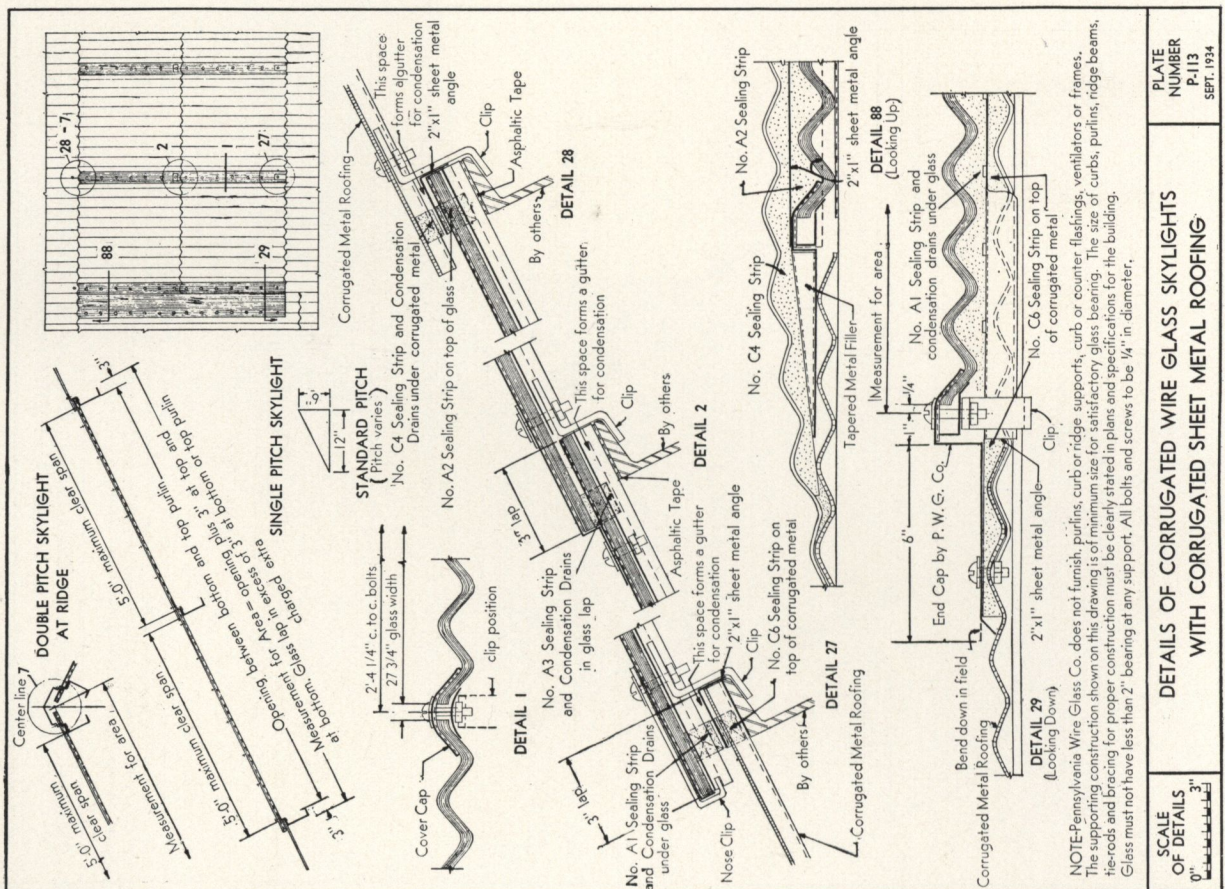
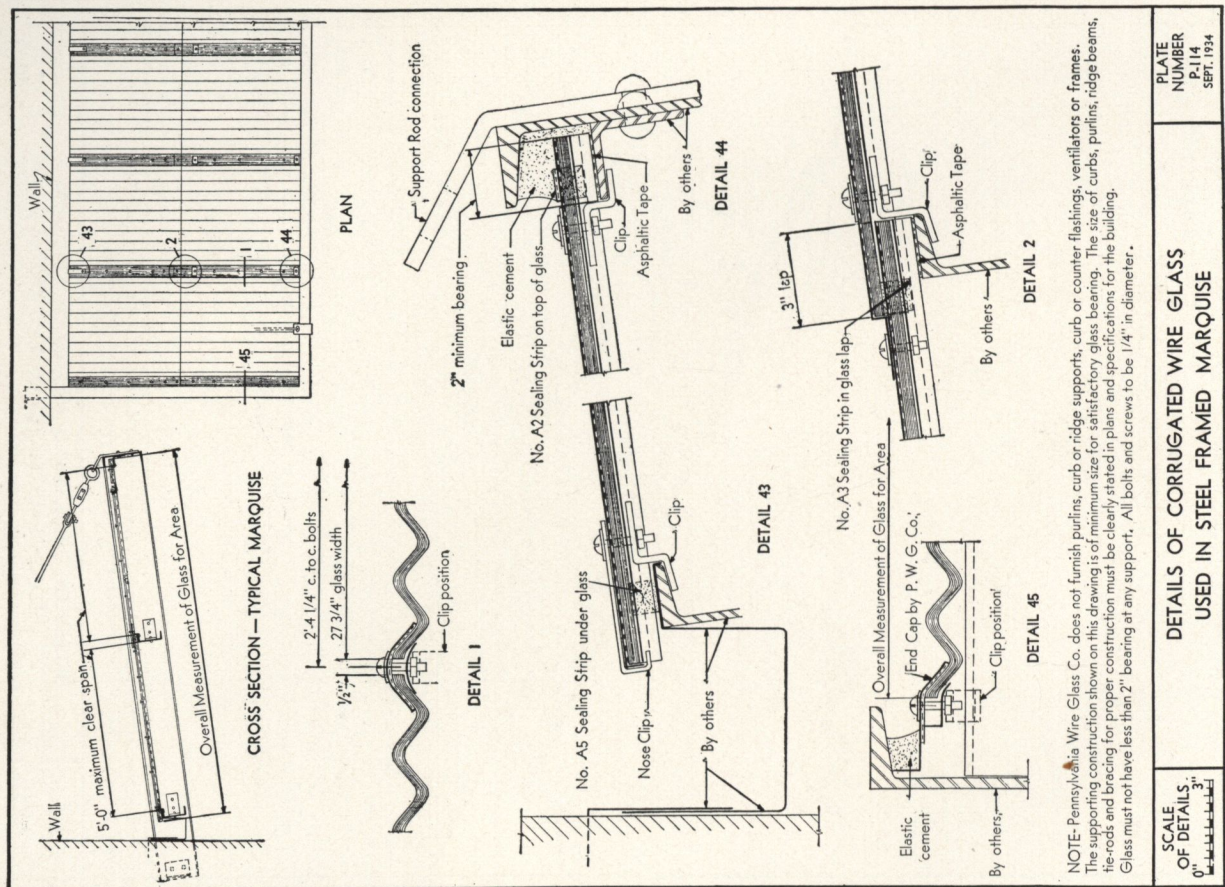


SCALE OF DETAILS 0" 3"	DETAILS OF CORRUGATED WIRE GLASS SKYLIGHTS USED ON BACK SLOPES OF SAWTOOTHS	PLATE NUMBER P-112 SEPT. 1934
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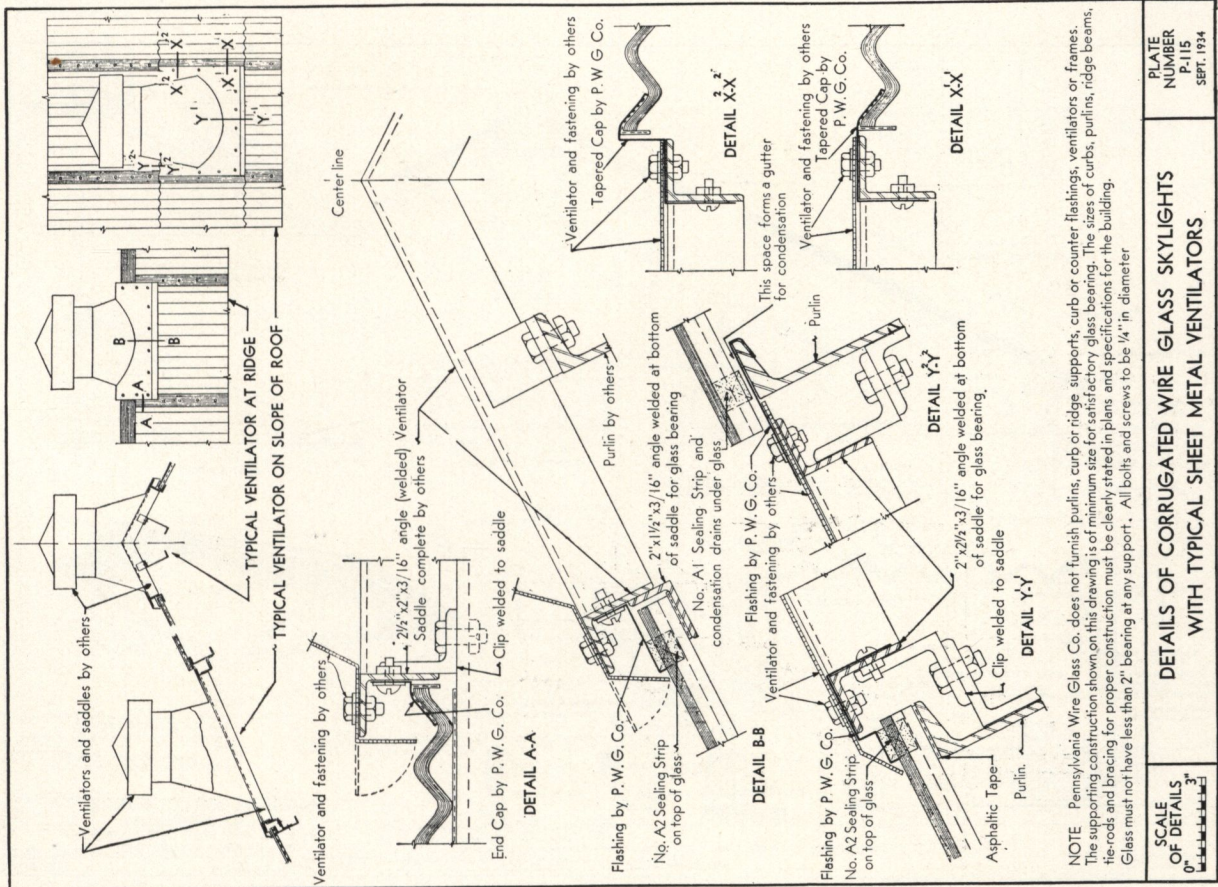
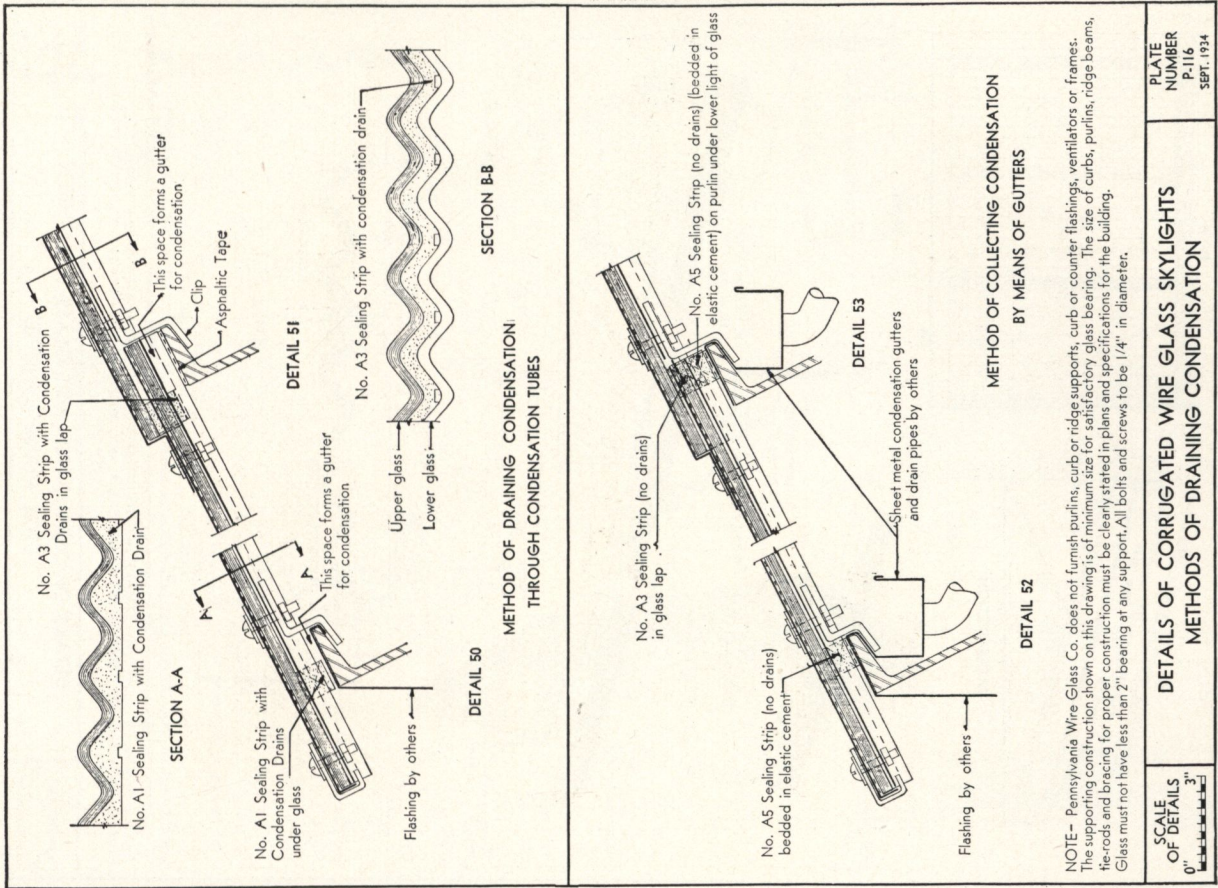


SCALE OF DETAILS 0" 3"	DETAILS OF CORRUGATED WIRE GLASS SKYLIGHTS WITH WOOD SAWTOOTH FRAMING	PLATE NUMBER P-111 SEPT. 1934
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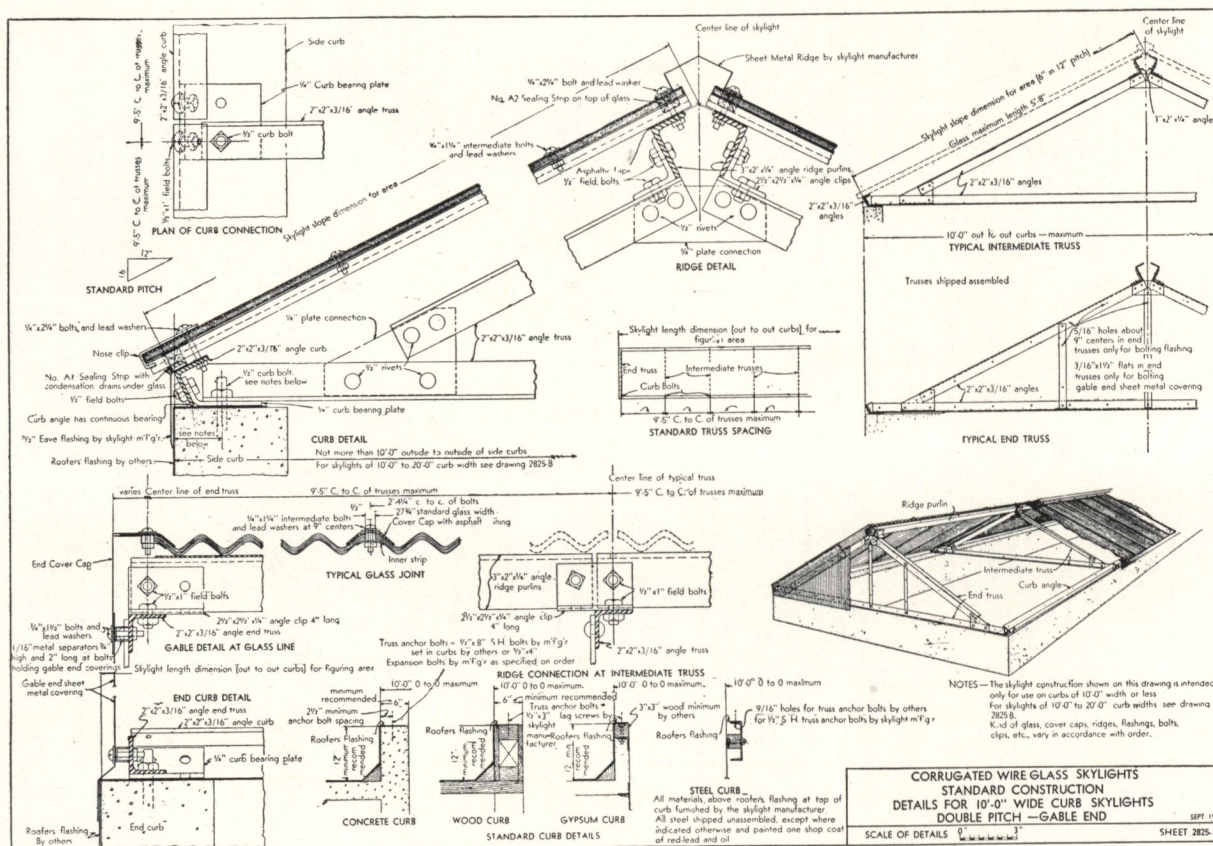
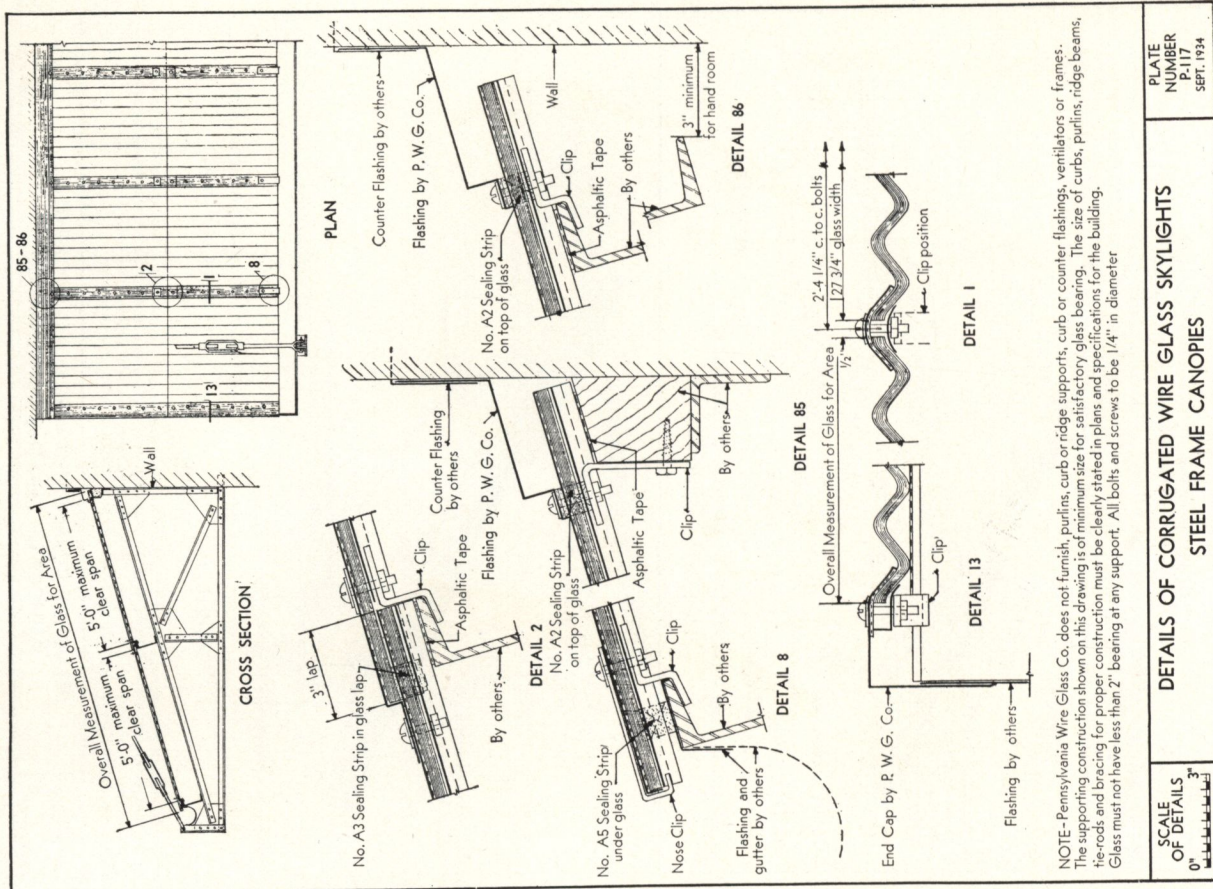




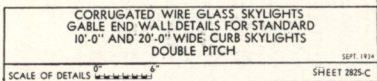






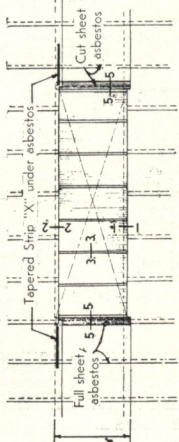




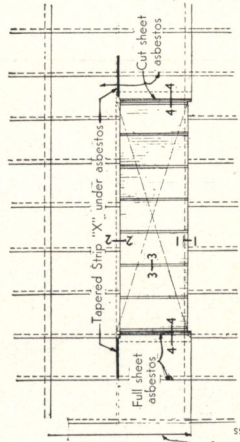




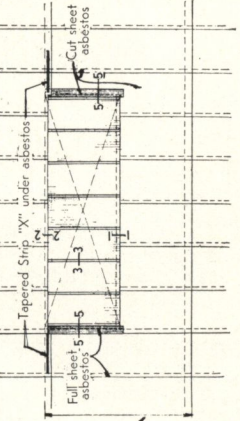
TOP ROW—Shows skylights starting at edge of full sheet of asbestos when skylights are placed at random and have no definite location or relation to trusses, bay centers, etc.



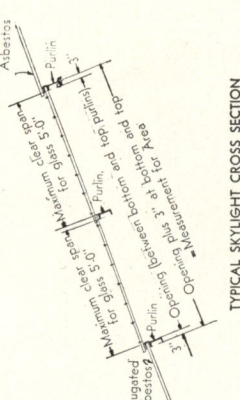
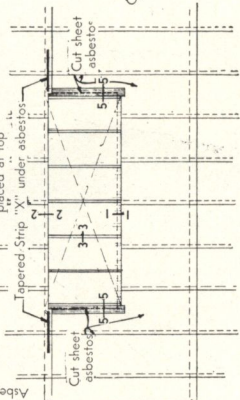
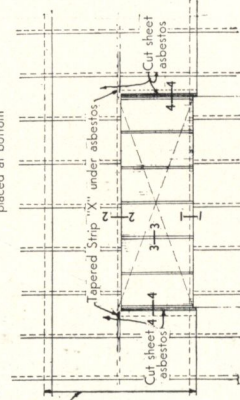
**SKYLIGHT TYPE "R"**  
Asbestos sheets at end of skylight same length as glass



**SKYLIGHT TYPE "S"**  
Asbestos sheets longer than glass placed at bottom

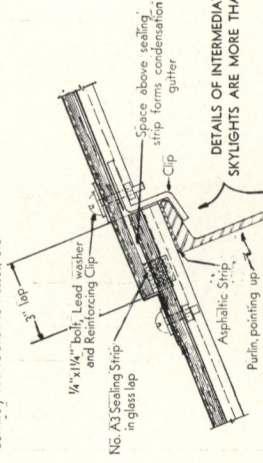


**SKYLIGHT TYPE "T"**  
Asbestos sheets longer than glass placed at top

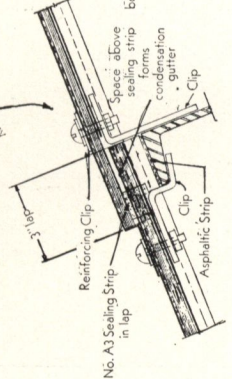


**TYPICAL SKYLIGHT CROSS SECTION**  
One run of glass

BOTTOM ROW—Shows skylights set in openings cut in asbestos with cut sheets at each end as often happens when skylights must be located definitely with relation to trusses, etc.



**DETAILS OF INTERMEDIATE PURLINS WHERE SKYLIGHTS ARE MORE THAN ONE LIGHT HIGH**



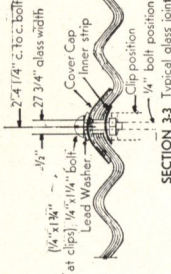
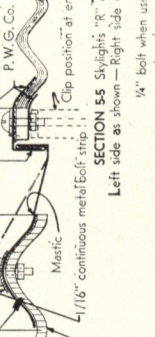
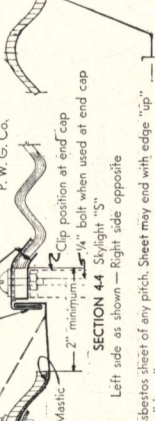
**SECTION 33 Typical glass joint**

The end cap connecting glass and asbestos is formed of two parts, viz:  
(1) A hard metal cap and inner strip which hold the glass firmly in place and  
(2) A soft metal wing which is formed over the asbestos, trimmed to fit and bolted every 9 inches.

**NOTE:**  
The soft metal wing is made 3" longer than hard metal cap at both bottom and top of skylight

The maximum and minimum spacing of asbestos with relation to the end of skylight (glass) is indicated. These distances apply when the asbestos sheet is cut so as to end either "up" or "down" and permit proper placing of end cover caps

**TYPICAL SKYLIGHT CROSS SECTION**  
More than one run of glass



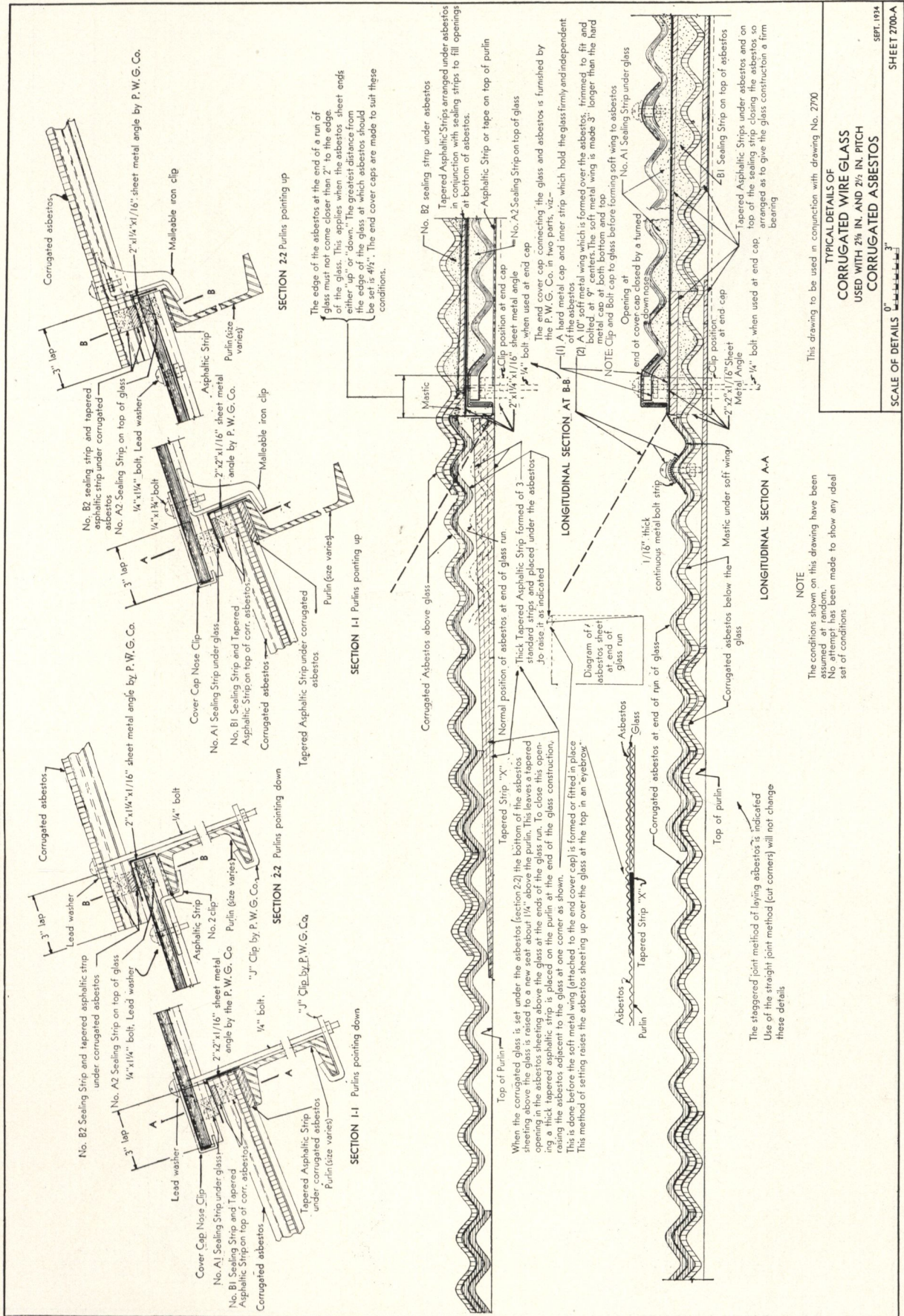
**DETAIL DRAWINGS**  
2W" pitch asbestos—drawing No. 2700A  
4.2" pitch asbestos—drawing No. 2700B  
7" pitch asbestos—drawing No. 2700C

**NOTE:**  
This is a typical plan and detail sheet showing corrugated wire glass with any make of corrugated asbestos roofing. Since the pitch of different asbestos sheets varies, certain details of erection also vary (see list of detail drawings at left)

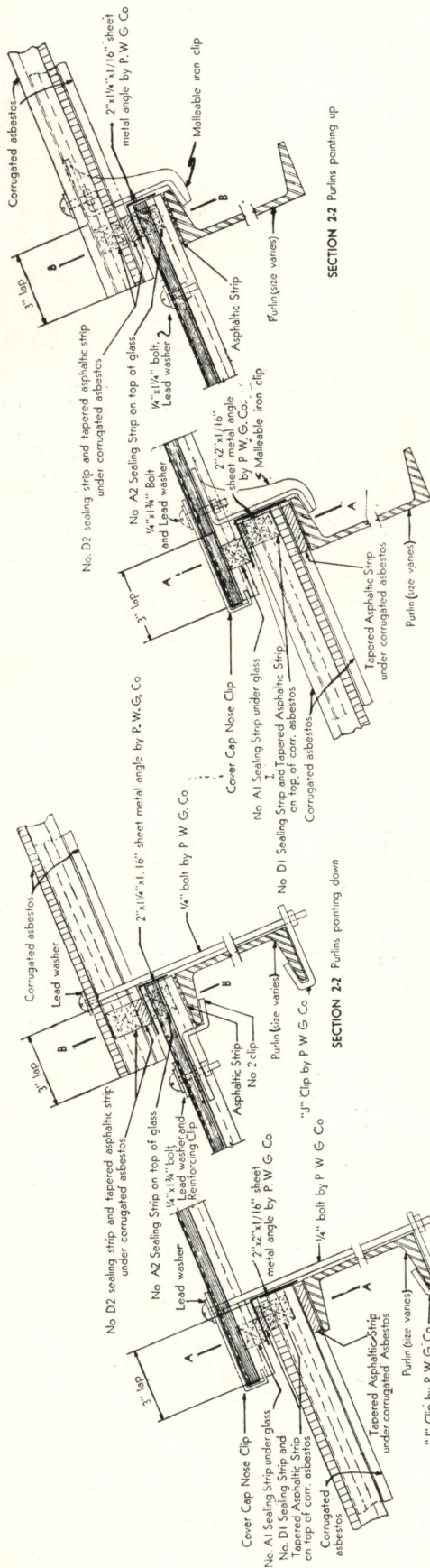
**CORRUGATED WIRE GLASS USED WITH CORRUGATED ASBESTOS ROOFING**

SCALE OF DETAILS 1" = 1'-0"  
SHEET 2700





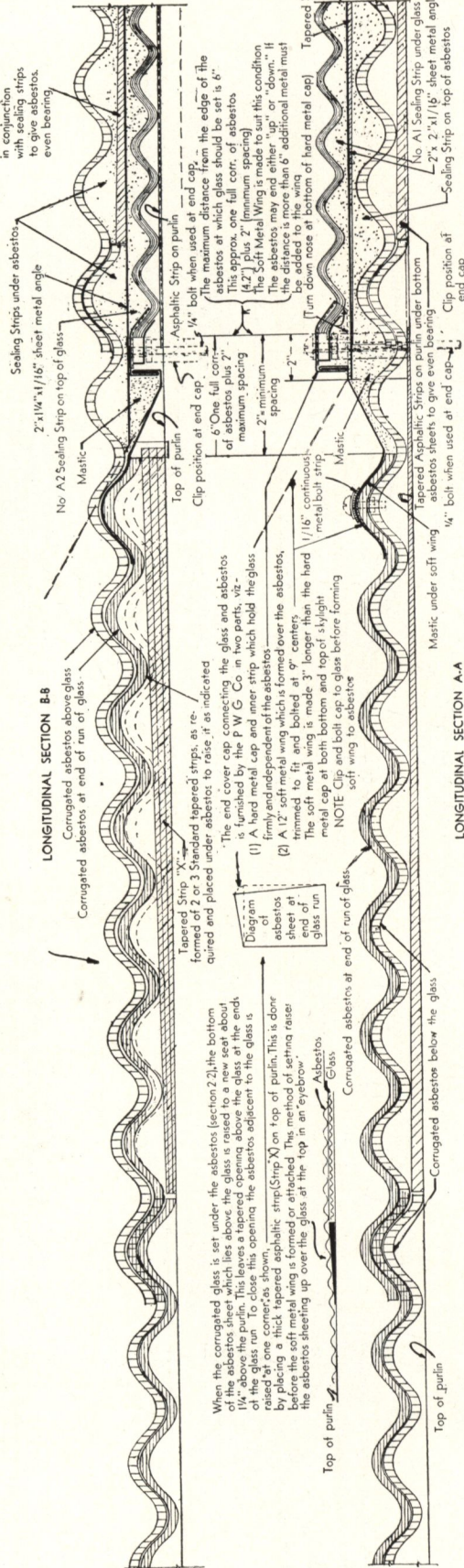




SECTION 2-2 Purlins pointing up

Tapered Asphaltic Strips placed under asbestos

SECTION 1-1 Purlins pointing up



LONGITUDINAL SECTION 8-8

LONGITUDINAL SECTION A-A

This drawing to be used in conjunction with drawing No. 2700

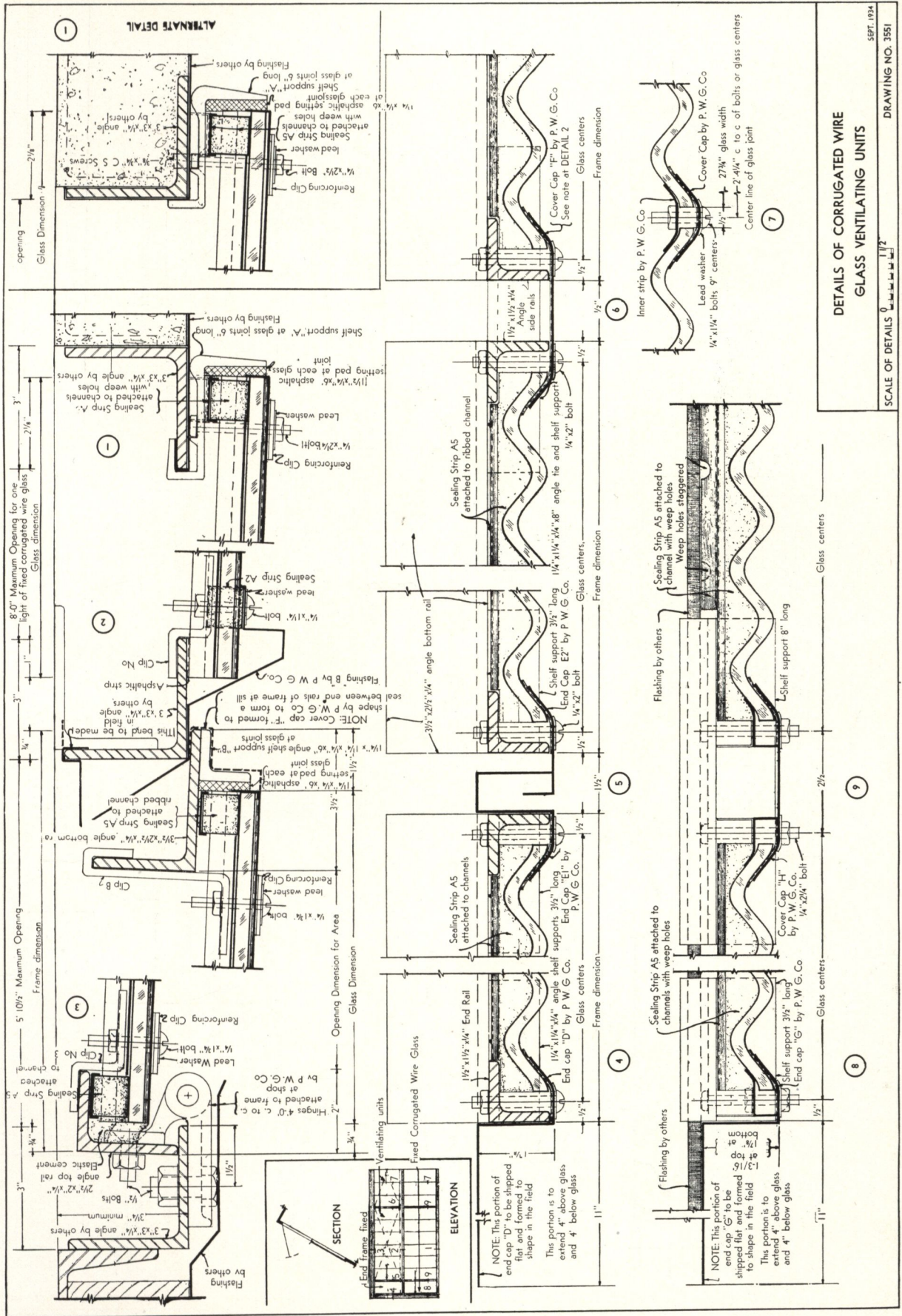
NOTE  
The conditions shown on this drawing have been assumed, at random. No attempt has been made to show any ideal set of conditions.

CORRUGATED WIRE GLASS  
USED WITH 42" PITCH  
CORRUGATED ASBESTOS

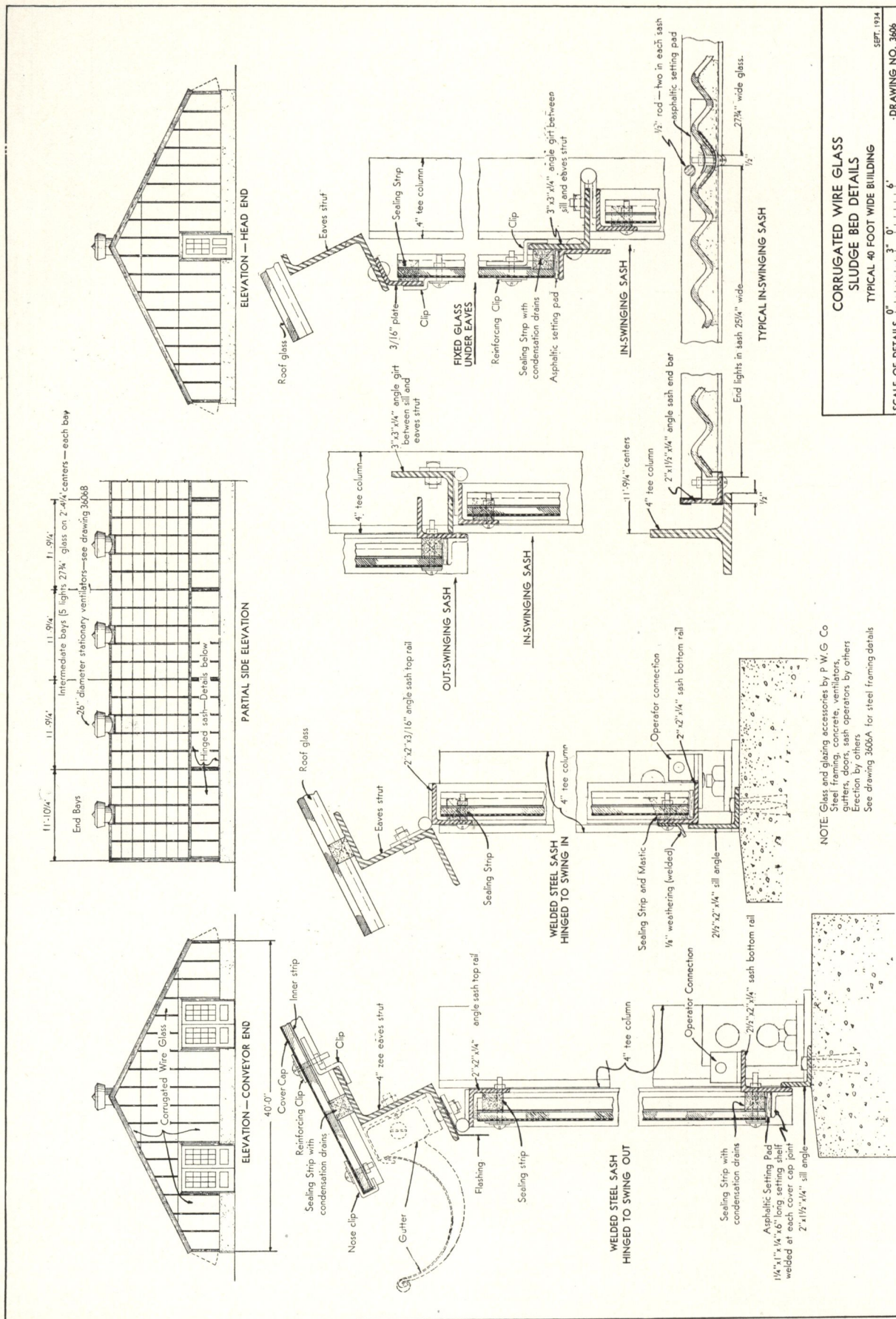
SCALE OF DETAILS 0" 1" 2" 3"

SEPT. 1934  
SHEET 2700B





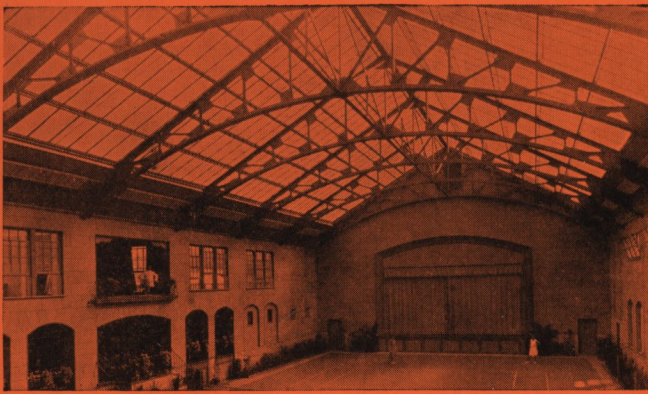




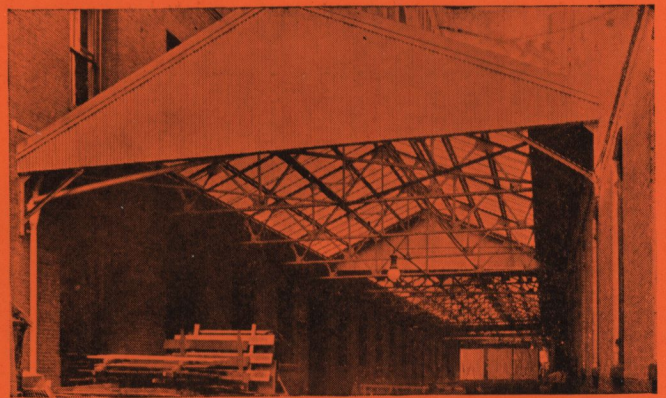




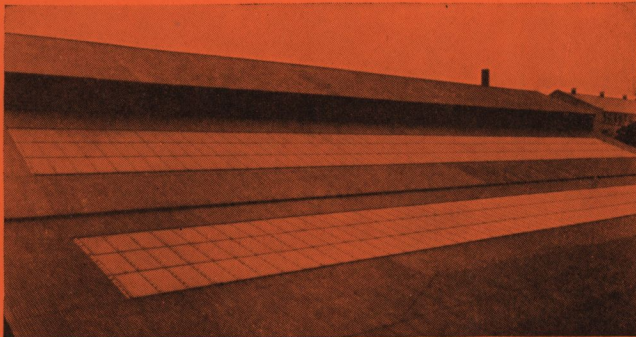




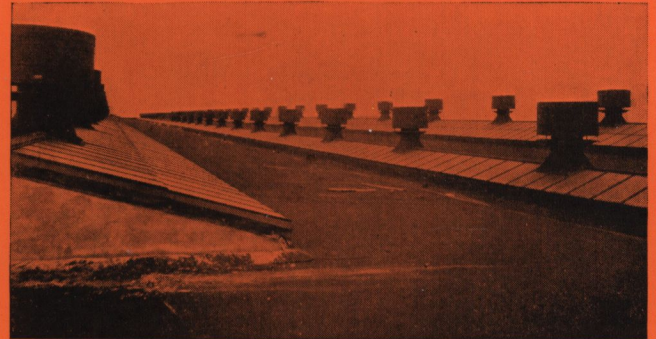
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DAYTON, OHIO  
C. W. G. Roof



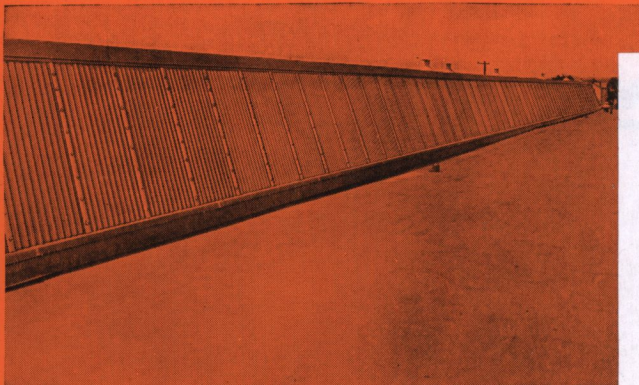
GOVERNMENT PRINTING OFFICE  
WASHINGTON, D. C.  
Street Between Buildings Roofed Over



OLIVER IRON AND STEEL CO.  
PITTSBURGH, PA.  
C. W. G. Used with Corrugated Sheet Roofing



CHESAPEAKE AND OHIO R. R. SHOPS  
RUSSELL, KY.  
68,000 sq. ft. Curb Skylights



LELAND ELECTRIC CO.  
DAYTON, OHIO  
20,000 sq. ft. Sawtooth Skylights



FORD MOTOR CO.  
LINCOLN DIVISION—DETROIT, MICH.  
C. W. G. on Back Slopes of Sawtooths

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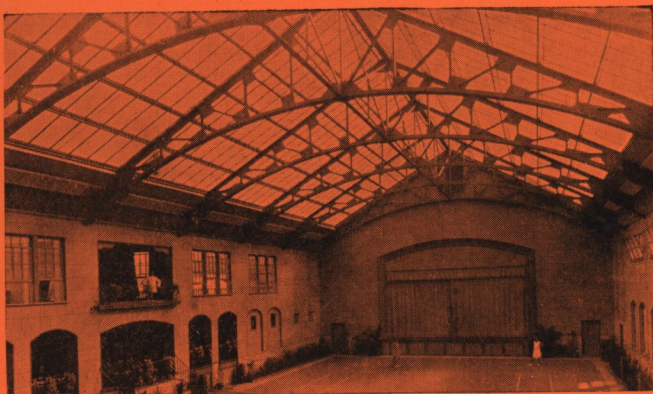
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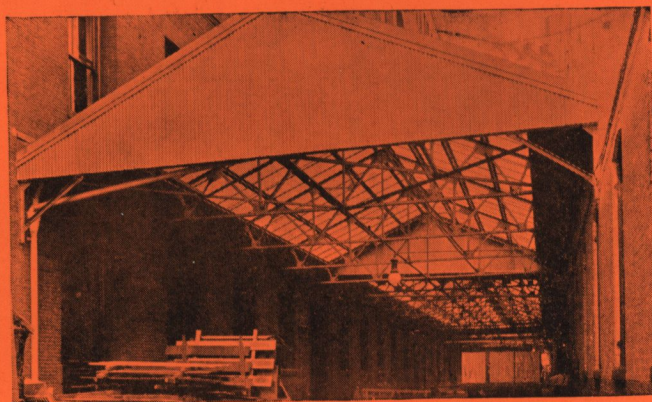
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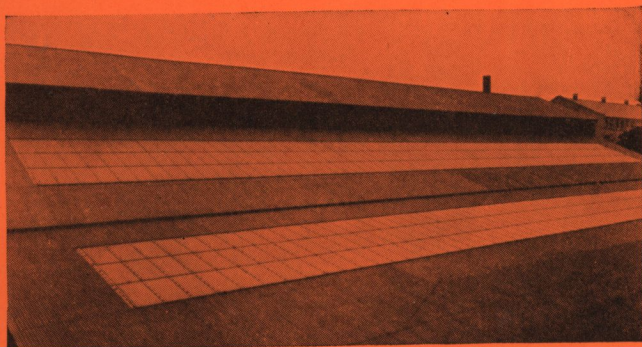




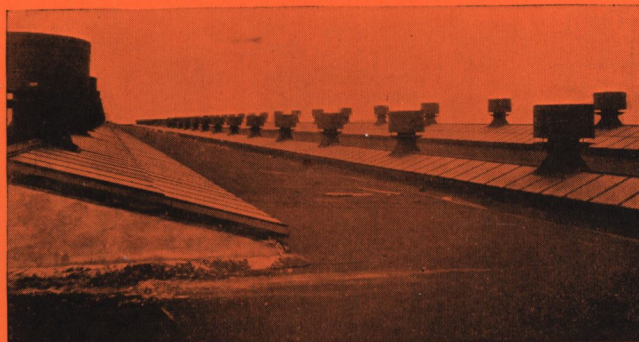
INDOOR TENNIS COURT OF MRS. H. E. TALBOT  
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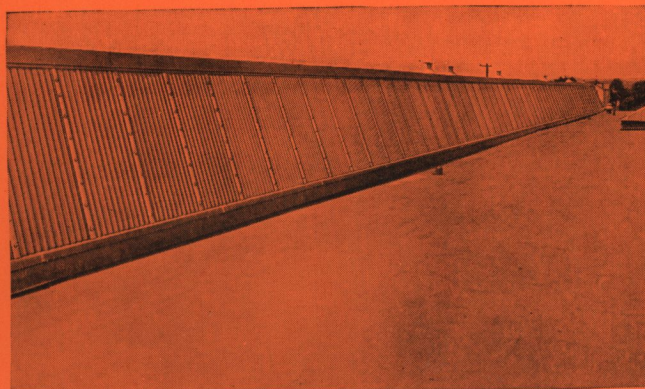
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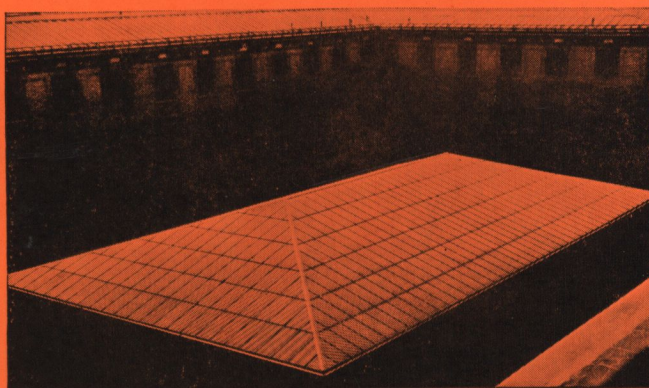
OLIVER IRON AND STEEL CO.  
PITTSBURGH, PA.  
C. W. G. Used with Corrugated Sheet Roofing



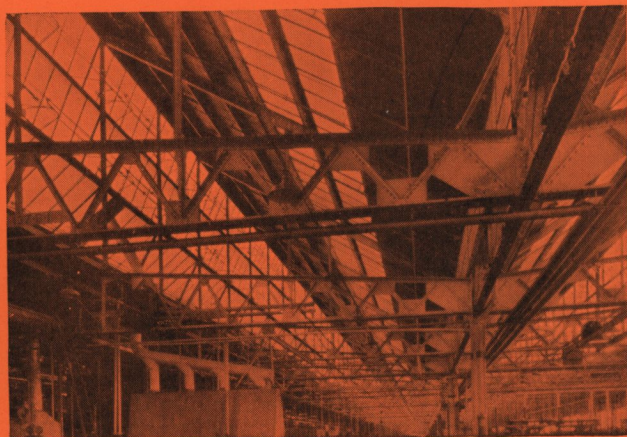
CHESAPEAKE AND OHIO R. R. SHOPS  
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68,000 sq. ft. Curb Skylights



LELAND ELECTRIC CO.  
DAYTON, OHIO  
20,000 sq. ft. Sawtooth Skylights



POST OFFICE, 33rd St. and Eighth Ave.  
NEW YORK CITY  
7,100 sq. ft. Hip Skylight



FORD MOTOR CO.  
LINCOLN DIVISION—DETROIT, MICH.  
C. W. G. on Back Slopes of Sawtooths



LIBBEY-OWENS SHEET GLASS CO.  
TOLEDO, OHIO  
C. W. G. Sawtooth Skylights